

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electronic-circuit-component supplying method of supplying each of a plurality of electronic circuit components to a predetermined supplying position, by feeding a component tape which includes a carrier tape and said plurality of electronic circuit components held by said carrier tape and arranged in a longitudinal direction of said carrier tape, in said longitudinal direction of said carrier tape, said method ~~being characterized by~~ including:

a component-tape information reading step of reading, by a component-tape information reading device, component-tape information relating to said component tape and represented by an information medium portion which is provided in said component tape; and

an information generating step of comparing the read component-tape information with predetermined component-tape information, and generating variable information which varies depending upon whether said read component-tape information corresponds to said predetermined component-tape information or not.

2. (Currently Amended) An electronic-circuit-component supplying method according to claim 1,

wherein said component-tape information reading step is includes a component-tape code recognizing step of recognizing, by a component-tape code recognizing device, a component-tape code as said information medium portion, so as to read said component-tape information,

and wherein the recognized component-tape code is compared with a predetermined component-tape code in said information generating step.

3. (Original) An electronic-circuit-component supplying method according to claim 2, including:

a component-tape code providing step of providing said component-tape code in said component tape,

wherein said component-tape-code providing step includes a connecting step of connecting two component tapes such that a trailing end portion of one of said two

component tapes and a leading end portion of the other of said two component tapes are connected through a connecting member which is provided with said component-tape code.

4. (Original) An electronic-circuit-component supplying method according to claim 3, wherein said component-tape code providing step includes a code-carrying connecting-member preparing step of providing said component-tape code in said connecting member.

5. (Currently Amended) An electronic-circuit-component supplying method according to claim 4,

wherein said code-carrying connecting-member preparing step includes a storing-member-code recognizing step of recognizing, by a storing-member-code recognizing device, a storing-member code provided in a tape-storing member which stores said component tape,

wherein said connecting member is provided with said component-tape code in the form of an identification code which represents information corresponding to information represented by said storing-member code recognized in said storing-member-code recognizing step.

6. (Currently Amended) A component-tape information providing method including:

a storing-member information reading step of reading, by a storing-member information reading device, storing-member information represented by a first information medium portion which is provided in a tape storing member storing a component tape which includes a carrier tape and said plurality of electronic circuit components held by said carrier tape and arranged in a longitudinal direction of said carrier tape; and

a component-tape information providing step of providing said component tape with a second information medium portion which represents component-tape information relating to said component tape, wherein said component-tape information corresponds to said storing-member information which is read in said storing-member information reading step.

7. (Currently Amended) A component-tape information providing method according to claim 6,

wherein said storing-member information reading step is includes a storing-member code recognizing step of recognizing a storing-member code as said first information medium portion, so as to read said storing-member information,

and wherein said component-tape information providing step is includes a component-tape code providing step of providing said component tape with a component-tape code as said second information medium portion representing said component-tape information corresponding to said storing-member information represented by said storing-member code.

8. (Currently Amended) A component-tape information providing method according to claim 7,

wherein said component-tape code providing step includes:

a step of providing a connecting member with said component-tape code in the form of an identification code which represents information corresponding to said storing-member information which is represented by said storing-member code recognized in said storing-member code recognizing step, and

a step of connecting two component tapes such that a trailing end portion of one of said two component tapes and a leading end portion of the other of said two component tapes are connected through said connecting member.

9. (Currently Amended) An electronic-circuit-component supplying system comprising:

a tape feeder which supplies each of a plurality of electronic circuit components to a predetermined supplying position, by feeding a component tape which includes a carrier tape and said plurality of electronic circuit components held by said carrier tape and arranged in a longitudinal direction of said carrier tape, in said longitudinal direction of said carrier tape;

a component-tape information reading device which reads component-tape information relating to said component tape and represented by an information medium portion which is provided in said component tape fed by said tape feeder; and

an information generating portion which generates variable information varying depending upon whether said component-tape information read by said component-tape information reading device is corresponds to predetermined information or not.

10. (Currently Amended) An electronic-circuit-component supplying system according to claim 9,

wherein said component-tape information reading device is includes a component-tape code recognizing device which recognizes a component-tape code as said information medium portion provided in said component tape,

and wherein said information generating portion generates the variable information varying depending upon whether said component-tape information represented by said component-tape code, which is recognized by said component-tape code recognizing device, is corresponds to a predetermined code said predetermined information or not.

11. (Original) An electronic-circuit-component supplying system according to claim 10, including:

a component-tape code providing device which provides said component-tape code in said component tape,

wherein said component-tape code providing device includes a tape connecting device which connects two component tapes such that a trailing end portion of one of said two component tapes and a leading end portion of the other of said two component tapes are connected through a connecting member which is provided with said component-tape code so that said component-tape code is provided in the connected component tapes.

12. (Currently Amended) An electronic-circuit-component supplying system according to claim 11, including:

a code-carrying connecting-member preparing device which provides said component-tape code in said connecting member,

wherein said code-carrying connecting-member preparing device includes:

a storing-member code recognizing device which recognizes a storing-member code provided in a tape storing member storing said component tape; and

a connecting-member code providing device which provides said connecting member with said component-tape code in the form of an identification code which represents information corresponding to said storing-member information which is represented by said storing-member code recognized by said storing-member code recognizing device.

13. (Currently Amended) An electronic-circuit-component mounting system, including:

a component supplying device which supplies a plurality of electronic circuit components;

a board holding device which holds a circuit board, onto which said electronic circuit components are to be mounted so that said circuit board constitutes an electronic circuit; and

a component mounting device which receives said electronic circuit components from said component supplying device, and mounts said electronic circuit components onto said circuit board held by said board holding device,

~~said system being characterized in that~~

wherein said component supplying device includes a tape feeder which sequentially supplies said plurality of electronic circuit components to a predetermined supplying position, by feeding a component tape which includes a carrier tape and said plurality of electronic circuit components held by said carrier tape and arranged in a longitudinal direction of said carrier tape, in said longitudinal direction of said carrier tape,

~~and in that said system includes further including:~~

a component-tape information reading device which reads component-tape information relating to said component tape and represented by an information medium portion that is provided in said component tape; and

an information generating portion which generates variable information varying depending upon whether said component-tape information read by said component-tape information reading device is corresponds to predetermined information or not.

14. (Currently Amended) An electronic-circuit-component mounting system according to claim 13,

wherein said component-tape information reading device is a component-tape code recognizing device which recognizes a component-tape code as said ~~component-tape~~ information medium portion provided in said component tape,

and wherein said information generating portion which generates the variable information varying depending upon whether said component-tape information represented by said component-tape code, which is recognized by said component-tape code recognizing device, is corresponds to a predetermined code said predetermined information or not.

15. (Currently Amended) A ~~component supplying tape~~ component-tape connecting member for connecting a leading end portion of a component ~~supplying~~ tape and a trailing end portion of another component ~~supplying~~ tape, each of the component ~~supplying~~ tapes holding including a carrier tape and a plurality of electronic circuit components

arranged thereon on and held by said carrier tape, and being to be fed in a longitudinal direction thereof for sequentially positioning said electronic circuit components in a component supplying position,

    said connecting member being characterized by including an information medium portion which enables information to be writable to and readable from said information medium portion.

16. (Currently Amended) A component-supplying tape component-tape connecting member according to claim 15, wherein said information medium portion enables the information to be writable to and readable from said information recording portion, in a non-contact manner without said information medium portion being brought into contact with a device which writes and reads said information to and from said information medium portion.

17. (Currently Amended) A component-supplying tape component-tape connecting member according to claim 15, wherein said information medium portion stores information relating to said electronic circuit components held by said component supplying tape.

18. (Currently Amended) A component-supplying tape component-tape connecting member according to claim 15, being a connecting tape.

19. (Currently Amended) A connecting-member supplying device for supplying a connecting member which connects a leading end portion of a component supplying tape and a trailing end portion of another component supplying tape, each of the component supplying tapes holding including a carrier tape and a plurality of electronic circuit components arranged thereon on and held by said carrier tape, and being to be fed in a longitudinal direction thereof for sequentially positioning said electronic circuit components in a component supplying position, said connecting-member supplying device being characterized by including:

    an information reading and supplying device which reads, from a storing-member-information medium portion, information relating to said electronic circuit components held by said component supplying tape, and which supplies said information, said storing-member-information medium portion being provided in a tape storing member which stores

said component supplying tape such that said component supplying tape can be taken out of said tape storing member, with said leading end portion being first pulled out of said tape storing member;

an information writing device which writes at least a part of said information supplied from said information reading and supplying device, to a connecting-member information medium portion provided in a connecting member, such that the written part of said information is readable from said connecting-member information medium portion, said connecting member connecting said leading end portion of said component supplying tape stored in said tape storing member, with said trailing end portion of said another component supplying tape; and

a supplying portion which holds said connecting member, and allows supply of said connecting member after said part of said information is written to said connecting-member information medium portion by said information writing device.

20. (Currently Amended) An electronic-circuit-component supplying system including:

a tape feeder which includes (a) a storing-member holding portion holding a tape storing member storing a component supplying tape which holds includes a carrier tape and a plurality of electronic circuit components arranged thereon on and held by said carrier tape, and which is to be fed in a longitudinal direction of said tape for sequentially positioning said electronic circuit components in a component supplying position, and (b) a feeding device feeding said component supplying tape in said a longitudinal direction of said component tape, by taking said component supplying tape out of said tape storing member, such that a leading end portion of said tape is first pulled out of said tape storing member, whereby said electronic circuit components are sequentially positioned in the a component supplying position;

an information reading and supplying device which reads, from a storing-member information medium portion provided in said tape storing member, information relating to said electronic circuit components held by said component supplying tape, and which supplies said information;

an information writing device which writes at least a part of said information supplied from said information reading and supplying device, to a connecting-member information medium portion provided in a connecting member, such that the written part of said information is readable from said connecting-member information medium portion, said connecting member connecting said leading end portion of said component supplying tape stored in said tape storing member, with a trailing end portion of another component supplying tape which is being fed by said feeding device; and

a supplying portion which holds said connecting member, and allows supply of said connecting member after said part of said information is written to said connecting-member information medium portion by said information writing device.

21. (Currently Amended) An electronic-circuit-component supplying system according to claim 20, including:

a connecting-member information reading device which is disposed in the vicinity of feed path of said component ~~supplying~~ tape and which reads said written part of said information from said connecting-member information medium portion; and

a different-information generating portion operable when said part of said information read by said connecting-member information reading device is different from predetermined information, to generate information indicating that the read information is different from said predetermined information,

wherein said electronic-circuit-component supplying system stops supply of said electronic circuit components in accordance with said information generated by said different-information generating portion.

22. (Currently Amended) An electronic-circuit-component mounting system, including:

a board holding device which holds a circuit board ~~such as a printed wiring board~~;  
a tape feeder which positions each of a plurality of electronic circuit components ~~arranged on and held by a component supplying tape~~, in a predetermined component supplying position, by feeding ~~said~~ a component ~~supplying~~ tape which includes a carrier tape and said plurality of electronic circuit components arranged on and held by said carrier tape, in a longitudinal direction thereof of said carrier tape;

a mounting device which receives said electronic circuit components positioned in said component supplying position by said tape feeder, and mounts said electronic circuit components onto said circuit board held by said board holding device;

a tape information reading device which is disposed in the vicinity of feed path of said component ~~supplying~~ tape and which reads information from a tape information medium portion provided in said component ~~supplying~~ tape; and

a different-information generating portion operable when said information read by said tape information reading device is different from predetermined information, to generate information indicating that the read information is different from said predetermined information.

23. (Currently Amended) An electronic-circuit-component mounting system according to claim 22,

wherein said tape feeder feeds connected ~~component-supplying component~~ tapes which are constituted by connection of a trailing end portion of a preceding ~~component-supplying component~~ tape and a leading end portion of a following ~~component-supplying component~~ tape through a connecting member,

and wherein said tape information reading device includes a connecting-member information reading device which reads information from a connecting-member information medium portion provided in said connecting member.

24. (Currently Amended) An electronic-circuit-component mounting system including:

a board holding device which holds a circuit board ~~such as a printed-wiring board~~;

a tape feeder which includes (a) a storing-member holding portion holding a tape storing member storing a component supplying tape which ~~holds~~ includes a carrier tape and a plurality of electronic circuit components arranged ~~thereon~~ on and held by said carrier tape, and which ~~is to be fed in a longitudinal direction of said tape for sequentially positioning said electronic circuit components in a component supplying position~~, and (b) a tape feeding device feeding said component supplying tape in ~~said~~ a longitudinal direction of ~~said~~ component tape, by taking said component supplying tape out of said tape storing member, such that a leading end portion of said tape is first pulled out of said tape storing member, whereby said electronic circuit components are sequentially positioned in ~~the~~ a component supplying position;

an information reading and supplying device which reads, from a storing-member-information medium portion provided in said tape storing member, information relating to ~~said electronic circuit components held by said component supplying tape~~, and which supplies said information;

an information writing device which writes at least a part of said information supplied from said information reading and supplying device, to a connecting-member information medium portion provided in a connecting member, such that the written part of said information is readable from said connecting-member information medium portion, said connecting member connecting a leading end portion of said component supplying tape stored in said tape storing member, with a trailing end portion of another component supplying tape which is being fed by said tape feeding device;

a supplying portion which holds said connecting member, and allows supply of said connecting member after said part of said information is written to said connecting-member information medium portion by said information writing device;

a mounting device which receives said electronic circuit components from said tape feeder, and mounts said electronic circuit components onto said circuit board held by said board holding device;

a connecting-member information reading device which is disposed in the vicinity of feed path of said component ~~supplying~~ tape and which is operable upon approximation of said connecting member to said reading device, to read said written part of said information from said connecting-member information medium portion; and

a different-information generating portion operable when said part of said information read by said connecting-member information reading device is different from predetermined information, to generate information indicating that the read information is different from said predetermined information.

25. (Currently Amended) A ~~component~~ component-tape information providing method of providing information relating to one of two component tapes a plurality of electronic circuit components arranged and held on and by one of two component supplying tapes each including a carrier tape and a plurality of electronic circuit components arranged and held on and by the component tape, in a connecting member which connects a leading end portion of said one of the two component ~~supplying~~ tapes with a trailing end portion of the other of the two component ~~supplying~~ tapes that precedes said one of the two component ~~supplying~~ tapes, so that supply of a plurality of the electronic circuit components through the preceding component ~~supplying~~ tape is followed by supply of said electronic circuit components through the following component ~~supplying~~ tape, said method being characterized by including:

an information reading step of reading said information from a storing-member information medium portion which has said information stored therein and which is provided in a tape storing member storing said following component ~~supplying~~ tape; and

an information writing step of writing at least a part of the read information, to a connecting-member information medium portion provided in said connecting member, such that the written part of said information is readable from said connecting-member information medium portion.

26. (Currently Amended) An electronic-circuit-component supplying method of feeding a plurality of component ~~supplying~~ tapes each ~~holding~~ including a carrier tape and a

plurality of electronic circuit components arranged thereon on and held by said carrier tape, in a longitudinal direction of said component supplying tapes, for sequentially positioning said electronic circuit components in a component supplying position so as to supply said electronic circuit components, said method being characterized by including:

a component supplying step of supplying said electronic circuit components through a preceding component supplying tape which is one of said plurality of component supplying tapes;

an a first information reading step of reading, at latest before completion of supply of said electronic circuit components through said preceding component supplying tape, information relating to ~~said electronic circuit components held by~~ another of said plurality of component supplying tapes which follows said preceding component supplying tape, from a storing-member information medium portion provided in a tape storing member which stores said another of said plurality of component supplying tapes;

an information writing step of writing at least a part of the read information, to a connecting-member information medium portion provided in a connecting member, such that the written part of said information is readable from said connecting-member information medium portion;

a tape connecting step of connecting a leading end portion of said another of said plurality of component supplying tapes, to a trailing end portion of said preceding component supplying tape, through said connecting member provided with said connecting-member information medium portion to which said at least part of said information has been written;

an a second information reading step of reading said at least part of said information written to said connecting-member information medium portion of said connecting member, when said connecting member reaches a predetermined position in step of the supply of said electronic circuit components through said preceding component supplying tape; and

a switch allowing/inhibiting step of allowing, if the read information corresponds to a predetermined information, switch from said supply of said electronic circuit components through said preceding component supplying tape, to supply of said electronic circuit components through said another of said component supplying tapes, while inhibiting said switch if said read information is different from said predetermined information.